

MONTANA **SCHOOL IMPROVEMENT**

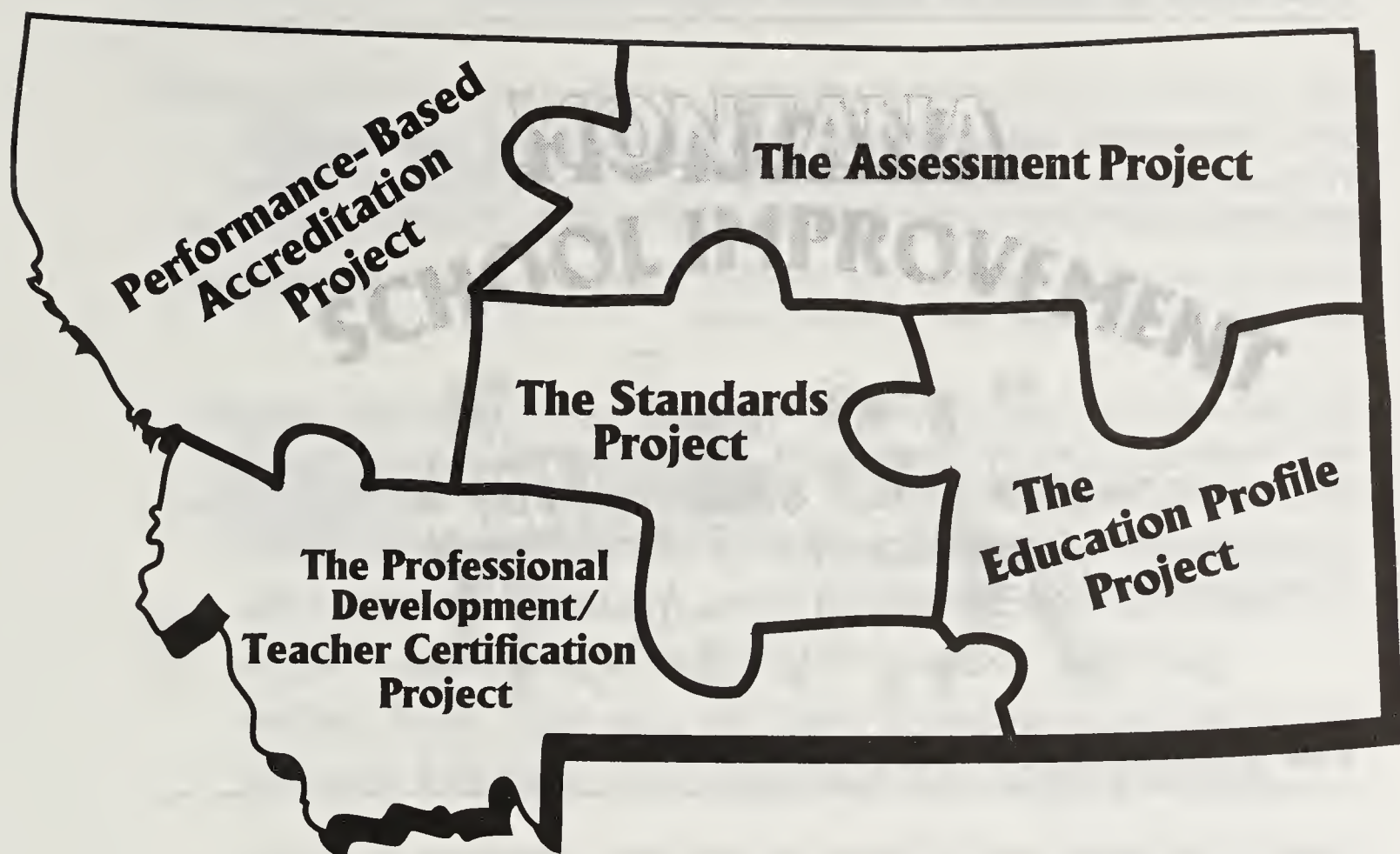


Nancy Keenan
State Superintendent of Public Instruction
1997

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Putting the Pieces Together

Education is a complex and complicated process, and so is improving our schools. As the above graphic represents, the Office of Public Instruction's (OPI) school improvement process has five distinct, but interlocking pieces. Each addresses a key area or player in our educational system, and each is integral to the entire process of school improvement.

When the results of these five pieces are put together, we all — students, educators, parents, and community members alike — will have a clearer picture of how to continue the process of improving Montana's schools and giving all Montana children the best education possible.

The Role of Data in School Improvement

The importance of collecting, reporting, and gleaning useful information from educational data is central to the cycle of school improvement. Without reliable, meaningful information, it is not possible to understand how well Montana's students and schools are doing or how well their performance measures up to other schools and our expectations at the community, state, and national levels.

The demand for data and useful information about Montana's schools and students is great, as is the need. The underlying commitment of OPI's school improvement work is both to ensure the responsible reporting of data and to keep the information we gather focused on school improvement over the long term.

The E³ Principle

Equity, effectiveness, and efficiency are the three underlying principles upon which we must lay the foundation for improving our schools.

For more information, please refer to the OPI document *Accountable School Improvement*, prepared for the 1997 Montana Legislature.

The Standards Project

Americans expect strict standards to govern construction of buildings, bridges, highways, and tunnels; shoddy work puts lives at risk. They expect stringent standards to protect drinking water, food they eat, air they breathe—standards are created because they improve the activity of life.

Standards can improve achievement by clearly defining what is to be taught and what kind of performance is expected.

–Diane Ravitch
Former Assistant
Secretary of Education

Standards, Benchmarks, Performance: The Basic Definitions

Content Standards: These standards indicate what students should know, understand, and be able to do in a specific content area, such as reading, mathematics, or social studies.

Benchmarks: Benchmarks define our expectations for students' knowledge, skills, and abilities along a developmental continuum in each content area. That continuum is focused at three points—the end of the primary grades (grade 4), the end of the intermediate grades (grade 8), and upon graduation (grade 12).

Performance Levels: These define the levels of achievement in broad, general terms.

- *Novice* — This level denotes that the student is beginning to attain the prerequisite knowledge and skills that are fundamental for work at each benchmark.
- *Nearing Proficiency* — This level denotes that the student has partial mastery of the prerequisite knowledge and skills fundamental for proficient work at each benchmark.
- *Proficient* — This level denotes solid academic performance for each benchmark. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced* — This level denotes superior performance.

Performance Standards: These standards are the specific expectations for performance in each content area at each of the three benchmarks. Performance standards explicitly define the quality of performance, describe the performance to be demonstrated, and answer the question: "How good is good enough?"

Content and Performance Standards Review: 1997-98

Montana Board of Public Education and OPI, in partnership with Montana's professional teaching associations, community organizations, parents, and the state's higher education community, will build on Montana's current standards by reviewing the content standards and developing performance standards in the following four subject areas:

- Reading
- Mathematics
- Science
- Health Enhancement

This review will be completed in 1998.

For more information on standards, please refer to the article *Persistence and Change: Standards-Based Systemic Reform in Nine States*, published by the Consortium for Policy Research in Education, March 1997.



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The Performance-Based Accreditation Project

The Performance-Based Accreditation Method allows schools to meet accreditation standards by showing through their students' performance that they provide a quality education.

- From *The Performance-Based Alternative: Improving Schools Through Accreditation, Montana User's Manual*

Performance-Based Accreditation: A Basic Definition

Performance-Based Accreditation is a process that gives schools and their communities an opportunity to focus on assessing needs, setting goals, and developing strategies in all areas related to school effectiveness.

Performance-Based Accreditation relies on *qualitative* data concerning the performance of a school, as measured by the performance of its students, rather than on *quantitative* data about inputs such as the number of students per class, administrators, and classes.

As a result, the Performance-Based Accreditation process can incorporate the content and performance standards into the school improvement process and provide a means to align a school's assessment methods with its specific needs for useful data and information.

The Fundamental Questions of the Performance-Based Accreditation Process

Through the Performance-Based Accreditation process, educators and other members of the school and local community seek to answer five fundamental questions.

- ✓ What are the particular needs and strengths of this community and its students?
- ✓ What is this school's mission and philosophy of education?
- ✓ What are students expected to learn and be able to do, and what level of performance does this school and community deem acceptable?
- ✓ How effective are the school's instructional methods and organizational systems in fulfilling its mission?
- ✓ What steps should be taken to improve the educational program of this school?

For more information, please refer to the document *The Performance-Based Alternative: Improving Schools Through Accreditation, Montana User's Manual*.

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TEL: (773) 707-3000 FAX: (773) 707-0827
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The Assessment Project

Without ... authentic and accurate systems to tell us how well schools and students are doing, efforts to improve our schools will lack direction.

**- Statement issued at the end
of Education Summit II
March 1996**

Why do we test?

We test to:

- Improve teaching and learning;
- Place our students in the classes appropriate to their knowledge and ability;
- Evaluate a program's effectiveness;
- Allow for accreditation of our schools; and
- Be accountable to students, parents, and taxpayers.

Assessment Purposes at Different Levels of Education¹

Education Level	Monitor Results	Accountability	Improve Student Performance	Allocate Resources	Selection/Placement	Accreditation	Program Evaluation
National	XXX	X		X		X	
State	XXX	XXX	X	XX		XXX	X
District	XX	XXX	XX	XX	XX	XX	XX
School	X	XX	XXX	X	XXX	X	XX
Classroom		X	XXX		XX	X	X
Student		X	XXX		X	X	X

Each X indicates the degree to which each type of assessment might be used most efficiently at each level. The more "X"s, the more efficient the use of assessment.

¹Source: *Designing Coordinated Assessment Systems*, published by the Council of Chief State School Officers, Edward D. Roebber, Director of Student Assessment Programs, November 1996, page 7.

The Role of Assessment at Different Levels of Education

As all teachers know, a good test must be reflective of what they have taught and what they expect their students to know. Otherwise, they would have no way of correctly gauging how well their students are doing or how effective their teaching methods are.

The same concept applies at all levels of education. If an assessment method is to be effective and provide information that is useful for school improvement, it must be aligned both to content and performance standards and to the purpose of the assessment.

**Effective Use of Assessment Strategies at
Different Education Levels²**

Education Level	Selected Response	Short Answer	Extended Response	Performance Events	Performance Tasks	Portfolio
National	XXX	XX	X			
State	XXX	XX	XX	X		X
District	XXX	XXX	XX	XX	X	XX
School	XX	XXX	XXX	XX	XX	XXX
Classroom	XX	XXX	XXX	XXX	XXX	XXX

Each X indicates the degree to which each type of assessment might be used most efficiently at each level. The more "X"s, the more efficient the use of assessment.

²Source: *Designing Coordinated Assessment Systems*, published by the Council of Chief State School Officers, Edward D. Roeber, Director of Student Assessment Programs, November 1996, page 9.

Mathematical Foundations of Quantum Mechanics

Let \mathcal{H} be a Hilbert space. A linear operator A on \mathcal{H} is called self-adjoint if $A = A^*$. The spectrum of A , denoted by $\sigma(A)$, is the set of all $\lambda \in \mathbb{C}$ such that $A - \lambda I$ is not invertible. The eigenvalues of A are the elements of $\sigma(A)$ which are also in the point spectrum.

Let \mathcal{H}_1 and \mathcal{H}_2 be Hilbert spaces. A linear operator A from \mathcal{H}_1 to \mathcal{H}_2 is called compact if it maps bounded sets to relatively compact sets. The compact operators on \mathcal{H} form a closed ideal in the algebra of all bounded operators on \mathcal{H} .

Let \mathcal{H} be a Hilbert space. A linear operator A on \mathcal{H} is called normal if $AA^* = A^*A$. The spectral theorem for normal operators states that if A is normal, then there exists a unique spectral measure E on the Borel sets of \mathbb{C} such that

$$A = \int_{\mathbb{C}} \lambda dE(\lambda).$$

Let \mathcal{H} be a Hilbert space. A linear operator A on \mathcal{H} is called positive if $A = A^*$ and $\langle Ax, x \rangle \geq 0$ for all $x \in \mathcal{H}$. The positive operators on \mathcal{H} form a cone in the algebra of all bounded operators on \mathcal{H} .

The Education Profile Project

What gets measured, gets done.

If you don't measure results, you can't tell success from failure.

If you can't recognize failure, you can't correct it.

If you can't see success, you can't reward it.

If you can't see success, you can't learn from it.

**- From *Reinventing Government*
By David Osborne and Ted Gaebler**

Measuring the Effectiveness of Schools

Parents, communities, policymakers, and educators want useful information that will help them evaluate and improve schools. In order to provide meaningful information to the public, it is necessary to make careful choices among the many possible measures.

Major Categories of Indicators of Effective Schools	Possible Measures
SCHOOL PROGRAM AND COURSE OFFERINGS	<ul style="list-style-type: none"> • basic and advanced courses • inclusion of technology • structure of school day • additional federal or state programs • access to vocational programs
STUDENT ENVIRONMENT INFORMATION	<ul style="list-style-type: none"> • safety factors • school time for learning • support for high-needs students • parent involvement and satisfaction • community and business volunteers
STUDENT ACHIEVEMENT	<ul style="list-style-type: none"> • norm-referenced test scores • performance levels reports (eg., novice, nearing proficiency, proficient, and advanced) for several different measures of achievement • clear standards and expectations
SCHOOL SUCCESS INFORMATION	<ul style="list-style-type: none"> • school and student honors • accomplishments in music, speech, drama, and athletics • post-graduation plans of seniors • school accreditation status • rates at which students graduate
STUDENT SERVICES	<ul style="list-style-type: none"> • counseling and career guidance • extracurricular activities • clubs • intramurals • referral system
SCHOOL FINANCE	<ul style="list-style-type: none"> • per student expenditures • portion spent on instruction • teacher/administrator salaries
SCHOOL STAFFING AND TEACHER CHARACTERISTICS	<ul style="list-style-type: none"> • student/teacher ratios • administrator/teacher ratios • teacher experience • staff involvement in decision making • teacher degrees, ethnicity
STUDENT ATTENDANCE INFORMATION	<ul style="list-style-type: none"> • attendance and absences • expulsions, suspensions • dropout ratio • truancy
SCHOOL FACILITIES	<ul style="list-style-type: none"> • construction history • technology available • books in library
BACKGROUND CHARACTERISTICS OF STUDENTS	<ul style="list-style-type: none"> • student mobility • gender counts • race/ethnicity

The Professional Development/ Teacher Certification Project

What teachers know and can do makes the crucial difference in what children learn....
Student learning in this country will improve only when we focus our efforts on improving teaching.

**- From a report issued by the
National Commission on
Teaching and America's Future**

Montana Standards for Teacher Education

Just as standards are important for our K-12 classrooms, they are also important for those programs that train our state's teachers. In 1979 Montana established standards for its teacher education programs.

The Montana Board of Public Education (BPE) — in partnership with OPI, the state's professional education associations, and the higher education community — reviews and revises Montana's teacher education program standards every five years. In addition, Montana's teacher education programs regularly undergo an on-site review in order to ensure that their courses meet Montana's standards for teacher education.

The BPE has approved eight teacher education programs in the state. Graduates of these programs are eligible for licensing to teach in Montana's classrooms.

Licensing of Teachers: Expectations of Growth

Teachers begin their journey in learning through their experiences as students. Then they proceed through formalized teacher preparation, rapid early-professional growth, and continuous updating and expanding of knowledge and skills throughout their careers.

Since 1995, Montana has required *all* teaching license holders to verify professional development when they renew their licenses to teach. In addition, school districts are required to plan at least three days of high-quality, professional development for their staff every year.

The continuing challenge is to align professional development more directly with the needs of children in achieving success in learning. By bringing standards for teacher preparation and performance into "sync" with established standards for student achievement, the acknowledged link between good teaching and effective learning will be strengthened.

What Teachers Should Know and Be Able To Do

The National Board for Professional Teaching Standards released a central policy statement titled: *What Teachers Should Know and Be Able To Do*. This statement is organized around the following five core propositions.

- ✓ Teachers are committed to students and their learning.
- ✓ Teachers know the subjects they teach and how to teach those subjects to students.
- ✓ Teachers are responsible for managing and monitoring student learning.
- ✓ Teachers think systematically about their practice and learn from experience.
- ✓ Teachers are members of learning communities.

Recommendations for Improvement

The OPI and the Montana Board of Public Education are actively involved in the Montana Commission on Teaching, which was established last year. The Commission has expressed interest in working toward implementing the five recommendations issued by the National Commission on Teaching and America's Future in September 1996. Those recommendations are to

- ✓ Get serious about standards for both students and teachers;
- ✓ Reinvent teacher preparation and professional development;
- ✓ Improve teacher recruitment and put qualified teachers in every classroom;
- ✓ Encourage and reward teacher knowledge and skill; and
- ✓ Create schools that are organized for student and teacher success.

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To Summarize . . .

By making Montanans aware not only of statewide and local expectations for students, teachers, and school systems, but also of the strengths and needs of their local schools, these five projects, when fit together, will give the Montana public the ability to

- ✓ form a factual picture of the work that is done in Montana's schools and the challenges and opportunities educators and students face every day;
- ✓ obtain information about statewide and national educational standards and the way their local schools measure up;
- ✓ weigh the information and make informed decisions about how to improve Montana's schools; and
- ✓ get involved to make their local schools better.

The Summary

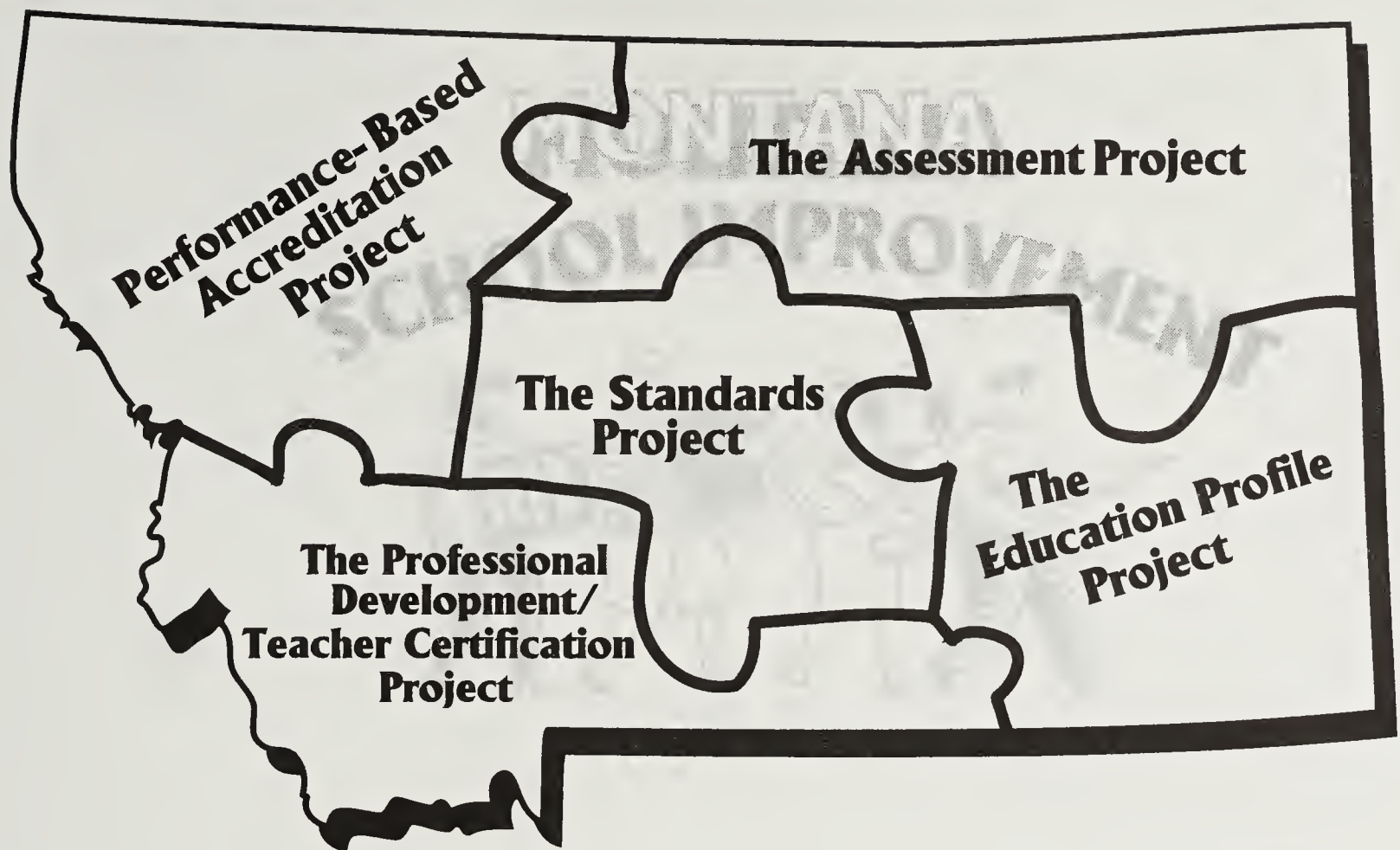
The summary is a brief, concise statement of the main points of a document. It is usually written at the end of the document, but can also be written at the beginning. The summary should be written in your own words, and should not be a copy of the original text. It should be long enough to cover all the main points, but short enough to be easy to read.

The summary should be written in a clear, logical order. It should start with a statement of the purpose of the document, and then go on to discuss the main points in detail. It should end with a statement of the conclusions that can be drawn from the document.

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The Big Picture

It is no longer good enough to know if students are above or below average; we need to find out whether they are able to attain the standards to which the real world will hold them accountable.

Working together, Montanans will be able to evaluate the educational quality of their schools, target their resources, and make informed decisions about how best to continue improving the education offered Montana's children.



The Big Picture

The following information is intended to provide a general overview of the current state of the industry. It is not intended to provide a detailed analysis of the market or to make any specific recommendations. The information is based on the best available data and is subject to change without notice.

The industry is currently experiencing a period of rapid growth, driven by a combination of factors including increased demand for services, improved operational efficiency, and the introduction of new technologies. This growth is expected to continue over the next several years, as the industry continues to evolve and expand its reach.

Key challenges facing the industry include the need to maintain high levels of service quality while managing costs, the rapid pace of technological change, and the increasing competition from new entrants. Despite these challenges, the industry remains a highly dynamic and innovative sector, with significant potential for future growth and success.

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